

WATER STORAGE IN THE PREHISTORIC SOUTHWEST

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ABSTRACT

Prehistoric water storage features occur throughout the Southwest, dating between 6000 B.C. and historic times. A typology for over 150 features provides a means for classifying the basins and assessing the variability in the technology used to access and store water. Excavation is usually necessary for accurate evaluation of feature function. Access to impounded water freed populations from the need to settle near natural water sources and permitted aggregation above the limit imposed by available natural water supplies.

Prehistoric constructions designed to concentrate and hold water for domestic or agricultural use occur throughout the Southwest. A variety of morphologically and technologically distinct forms has been documented, ranging from large reservoirs capable of holding hundreds of kiloliters of water to "potholes" with capacities of only a few liters. Study of these features exposes a significant aspect of primitive technology. The geographic and temporal trends in the appearance and use of this technology have implications for our understanding of settlement patterns, population aggregation, and the manipulation of resources within arid environments.

Bandelier (1892) chronicled the existence of prehistoric water storage features in the Southwest as early as 1883, and it was but a few years later that a water storage basin was first excavated, by the Hemenway Expedition in the Salt River basin (Baxter 1888; Cushing 1890; Hodge 1893). In the last three decades, excavations of additional water storage devices in Arizona (Agenbroad, Haynes, and Kelso 1972; Agenbroad and Huckell n.d.; Dart 1983; Haury 1957, 1976:152-153; Olson 1960; Raab 1974, 1975; Wheat 1952), Utah (Sharrock, Dibble, and Anderson 1951), Colorado (Rohn 1963:448-449; 1971), New Mexico (Evans 1951; Hayes, Young, and Warren 1981:24), western Texas (Scarborough 1985), and northern Mexico (Di Peso, Rinaldo, and Fenner 1974:832-833) have led to a greater understanding of variability in the morphology and engineering of the features and to better feature identification.

IDENTIFICATION

The prehistoric inhabitants of the Southwest dug holes in the ground for a number of reasons other than water collection and storage. From the surface,